CIVIL TECH LABS

Accredited by NABL as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer,
Vidyaranyapura Sub Division,
BBMP.

26th May 2016

Dear Sir,

Sub: Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division. Testing of cubes – Reg.

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Report of the above.

Thanking you,

For Civil Tech Labs,

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

AE-9

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97

CIVIL TECH LABS
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Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Grade of Concrete	M-15
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	CC Work (Kerb Stone)	150.82 X 150.78 X 150.0	22741	28/04/2016	26/05/2016	28	8.20	372	**16.53**	**16.39**
2		150.91 X 150.86 X 150.0	22766				8.19	368	**16.36**	
3		150.93 X 150.78 X 150.0	22757				8.18	366	**16.27**	

Note:

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3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the customer.

Asst. Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

Khushboo

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS

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T-2654

To,

Assistant Executive Engineer,
Vidyaranyapura Sub Division,
BBMP.

28th May 2016

Dear Sir,

Sub: Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Testing of cubes – Reg.

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Reports of the above.

Thanking you,

For Civil Tech Labs,

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP

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5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Grade of Concrete	M-15
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-1	150.08 X 150.06 X 150.0	22521	30/04/2016	28/05/2016	28	8.21	362	**16.09**	**15.91**
2		150.12 X 150.14 X 150.0	22539				8.19	354	**15.73**	
3		150.09 X 150.12 X 150.0	22532				8.20	358	**15.91**	

Note:

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4. The results are based on the test conducted on samples supplied by the customer.

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

CIVIL TECH LABS BANGALORE

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Quality Manager

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Grade of Concrete	M-15
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-2	150.09 X 150.07 X 150.0	22524	30/04/2016	28/05/2016	28	8.19	368	**16.36**	**16.21**
2		150.11 X 150.13 X 150.0	22536				8.20	364	**16.18**	
3		150.12 X 150.14 X 150.0	22539				8.18	362	**16.09**	

Note:

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4. The results are based on the test conducted on samples supplied by the customer.

Assistant Executive Engineer
Vidyaranyapura Division
BBMP, Bangalore - 97

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Quality Manager

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Grade of Concrete	M-15
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample 3	150.13 X 150.12 X 150.0	22538	30/04/2016	28/05/2016	28	8.21	368	**16.36**	**16.18**
2		150.14 X 150.11 X 150.0	22538				8.20	366	**16.27**	
3		150.11 X 150.13 X 150.0	22536				8.19	358	**15.91**	

Note:

1. The results relate only to the items tested.
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3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the customer.

CIVIL TECH LAB BANGALORE

(KHUSHBOO L.)
Quality Manager

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5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Grade of Concrete	M-15
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-4	150.11 X 150.13 X 150.0	22536	30/04/2016	28/05/2016	28	8.17	352	**15.64**	**15.76**
2		150.14 X 150.11 X 150.0	22538				8.19	358	**15.91**	
3		150.16 X 150.13 X 150.0	22544				8.18	354	**15.73**	

Note:

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CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

Accredited by NABL as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

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T-2654

To,

Assistant Executive Engineer,
Vidyaranyapura Sub Division,
BBMP.

30th May 2016

Dear Sir,

Sub: Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Testing of cubes – Reg.

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Reports of the above.

Thanking you,

For Civil Tech Labs,

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

Assistant Executive Engineer
Vidyaranyapura Division
BBMP, Bangalore - 97

CIVIL TECH LABS
5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Grade of Concrete	M-20
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-1	150.08 X 150.06 X 150.0	22521	02/05/2016	30/05/2016	28	8.22	500	**22.22**	**21.78**
2		150.09 X 150.08 X 150.0	22526				8.20	490	**21.78**	
3		150.05 X 150.07 X 150.0	22518				8.19	480	**21.33**	

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Khushboo

(KHUSHBOO L.)
Quality Manager

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Grade of Concrete	M-20
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-2	150.12 X 150.11 X 150.0	22535	02/05/2016	30/05/2016	28	8.21	500	**22.22**	**22.15**
2		150.11 X 150.12 X 150.0	22535				8.19	490	**21.78**	
3		150.08 X 150.09 X 150.0	22526				8.22	505	**22.44**	

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(KHUSHBOO L.)
Quality Manager

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Grade of Concrete	M-20
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-3	150.15 X 150.16 X 150.0	22547	02/05/2016	30/05/2016	28	8.22	500	**22.22**	**21.70**
2		150.13 X 150.14 X 150.0	22541				8.20	485	**21.56**	
3		150.12 X 150.11 X 150.0	22535				8.19	480	**21.33**	

Note:

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4. The results are based on the test conducted on samples supplied by the customer.

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

Khushboo

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS BANGALORE

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Grade of Concrete	M-20
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-4	150.08 X 150.06 X 150.0	22521	02/05/2016	30/05/2016	28	8.22	495	**22.00**	**21.63**
2		150.09 X 150.07 X 150.0	22524				8.19	480	**21.33**	
3		150.11 X 150.14 X 150.0	22538				8.20	485	**21.56**	

Note:

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4. The results are based on the test conducted on samples supplied by the customer.

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS

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T-2654

To,

Assistant Executive Engineer,
Vidyaranyapura Sub Division,
BBMP.

23rd April 2016

Dear Sir,

Sub: Testing of Materials.

As requested, tests on physical properties were carried out for the Materials supplied by you, for the work of **'Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.'**

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

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TEST REPORT

TEST ON CEMENT

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of the Agency	Sri. T. K. Shankarappa
Date of Testing	23/04/2016

Tests	Test Method As Per IS & Apparatus		Results		Requirements As Per IS 8112:1989	Remarks
	IS Code	Method	Value	Unit		
Initial Setting Time	**IS-4031 (Part-5) 1988**	VICAT	49	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	**IS-4031 (Part-5) 1988**	VICAT	489	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	**IS-4031 (Part-3) 1988**	LE-CHATELIER	3	mm	Not More Than 10 mm	Satisfies Requirement

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(KHUSHBOO L.)
Quality Manager

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TEST REPORT

GRADATION TEST ON FINE AGGREGATES

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Date of Testing	23/04/2016
Specific Gravity	**2.57**
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2011), IS : 2386 (Part III)-1963 (Reaffirmed 2011)

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970 (Reaffirmed 2011)				Grading Zone	Remarks
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV		
River Sand	10	**100**	100	100	100	100	II	Satisfies the requirement
	4.75	**98.9**	90-100	90-100	90-100	95-100		
	2.36	**88.2**	60-95	75-100	85-100	95-100		
	1.18	**76.3**	30-70	55-90	75-100	90-100		
	0.6	**49.2**	15-34	35-59	60-79	80-100		
	0.3	**26.1**	5-20	8-30	12-40	15-50		
	0.15	**8.2**	0-10	0-10	0-10	0-15		

Note:

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4. The results are based on the test conducted on samples supplied by the customer.

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

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TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 40mm ↓ Graded

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of Agency	Sri. T. K. Shankarappa
Date of Testing	23/04/2016
Specific Gravity	**2.67**
Water Absorption	**0.28%**
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011), IS : 2386 (Part III)–1963 (Reaffirmed 2011)

IS Sieve Designation (mm)	**Sieve Analysis (% Passing IS Sieve)**	**Grading Requirement as per IS:383-1970 (Reaffirmed 2011)**	**Remarks**
80	**100**	100	**Satisfies the requirement**
40	**99.2**	95-100	
20	**55.3**	30-70	
10	**26.4**	10-35	
4.75	**3.5**	0-5	

Note:

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Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

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TEST REPORT

TESTS ON REINFORCEMENT STEEL BAR 10mm

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of the Agency	Sri. T. K. Shankarappa
Date of Testing	23/04/2016
Grade of Steel	Fe - 500

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	10	10	Satisfactory
2	Wt/m Length (Kg/m)	0.618	0.617	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	14.9	12	Satisfactory
5	Yield Stress(N/Sq.mm)	511	500	Satisfactory
6	U T S (N/Sq.mm)	568	545	Satisfactory

Note:

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3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the client.

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS
5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TESTS ON SOLID BLOCKS

Name & Address of the Customer	AEE, Vidyaranyapura Sub Division, BBMP.
Name of Work	Improvements to drains at HMT layout 2nd Block 6th cross and surrounding in ward no. 9 in Vidyaranyapura sub Division.
Name of the Agency	Sri. T. K. Shankarappa
Date of Testing	23/04/2016
Technical Reference	IS: 2185(Part-I)-2005 (Reaffirmed 2010)
No. of samples tested	8
Grade	C (4.0)

1. COMPRESSIVE STRENGTH

Sl. No.	Nominal Dimension (cms)	Compressive strength (N/mm^2)	Minimum Compressive Strength as per IS: 2185(Part-I)-2005 (Reaffirmed 2010)	
			Individual	Avg. of 8 samples
1	40x20x20	4.2	**Minimum Compressive Strength of Individual Units**	**Minimum Average Compressive Strength of Units**
2		4.4		
3		4.3	For Grade C (5.0)- 4.0 N/mm^2 For Grade C (4.0)- 3.2 N/mm^2	For Grade C (5.0)- 5.0 N/mm^2 For Grade C (4.0)- 4.0 N/mm^2
4		4.1		
5		4.2		
6		4.3		
7		4.4		
8		4.3		
Average Compressive strength (N/mm^2)		**4.3**		

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2. WATER ABSORPTION

Sl. No.	Nominal Dimension (cms)	Water Absorption (% by weight)	Average (% by weight)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2010)
1	40x20x20	7.29	**7.32**	When three samples are tested the average water absorption shall not be more than 10% by mass
2		7.31		
3		7.35		

3. BLOCK DENSITY

Sl. No.	Nominal Dimension (cms)	Block Density (Kg/cum)	Average (Kg/cum)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2010)
1	40x20x20	1868.4	**1870.3**	The Solid Concrete blocks used as load bearing units shall have average block density not less than 1800Kg/m^3
2		1872.9		
3		1869.5		

Remarks	Satisfies the Requirements.

Note:

1. The results relate only to the items tested.
2. Report shall not be reproduced except in full, without the written approval of the lab.
3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the customer.

(KHUSHBOO L.)
Quality Manager

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